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Kenichi Kawasaki

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ROGITZ & ASSOCIATES
750 B STREET
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SAN DIEGO, CA 92101

EXAMINER

LANIER, BENJAMIN E

ART UNIT

PAPER NUMBER

2432

MAIL DATE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/666,724	Applicant(s) KAWASAKI ET AL.	
	Examiner BENJAMIN E. LANIER	Art Unit 2432	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-12,15,17-19,22,23,31-37 and 39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-12,15,17-19,22,23,31-37 and 39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed 21 October 2010 amends claims 9 and 15. Claim 16 has been cancelled. Applicant's amendment has been fully considered and entered.

Response to Arguments

2. Applicant argues, "In any case, the specification teaches, and Claim 1 recites, that displayer control signals may be sent on the primary link and in some cases may be multiplexed in with the multimedia data." In response, the specification fails to disclose how the capability signals can be multiplexed with the multimedia data when the multimedia data is transmitted from the source to the displayer, while the capability signals are transmitted from the displayer to the source.

3. Applicant argues, "As set forth by Claim 17 for example, capability signals are sent from the receiver to the means for wirelessly transmitting to cause the means for transmitting to adjust a directivity of an antenna beam transmitted by the means for wirelessly transmitting...the relied-upon signals are not sent from the receiver to the source but rather from a separate remote control 110. Ishimaru does not suggest moving the function of the RC 110 into the receiver nor is there any reason to do on the basis of the other reference..." This argument is not persuasive because Ishimaru specifically discloses that the antenna directivity signal is communicated between the terminal station and the base station without use of a remote control (Figure 5 & [0066]-[0068]).

4. Applicant argues, "Claim 31 does not recite power control. Instead, Claim 31 recites control signals that are useful for establishing a source *antenna beam form control*, a concept

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not addressed, to the best of Applicant's belief, in the relied-upon references." This argument is not persuasive because Applicant has failed to point out how the language of the claims patentably distinguishes from the references.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 5-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 5 requires capability signals being multiplexed with the multimedia data on the primary link, which renders the claim indefinite because independent claim 1 requires the capability signals to be transmitted from the displayer to the source and the multimedia data to be transmitted from the source to the displayer. Therefore, the capability signals could not be multiplexed with the multimedia data as required by claim 5, because the capabilities signals are not transmitted in the same direction as the multimedia data.

8. Claim 6 requires displayer control signals or capability signals to be communicated on a secondary link having a data rate lower than the data rate of the primary link, which renders the claim indefinite because independent claim 1 requires the capability signal and the displayer control signal to be communicated over the primary link.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 1, 2, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olson, U.S. Publication No. 2003/0117587, in view of Chang, U.S. Publication No. 2002/0183003, in view of Nesic, U.S. Patent No. 6,593,895, in view of Koyama, U.S. Publication No. 2002/0159035, and further in view of Yanagihara, U.S. Patent No. 5,712,946. Referring to claims 1, 2, 6, Olson discloses a projector (Figure 2, 14) that wirelessly (Figure 2, 32 & [0023]) receives uncompressed data ([0041]) from a portable computer (Figure 4, 56 & 58) for display on a screen (Figure 4, 65), which meets the limitation of a source of multimedia data, means for storing multimedia data, and a displayer of multimedia data mounted in a room in which the source is disposed, the source wirelessly transmitting the multimedia data in an uncompressed form to the displayer on a primary link, the displayer is a projector, the source and displayer not being disposed together in a common package. Olson does not specify using a frequency band of 60 GHz. Chang discloses using rf/microwave signals in the frequency range of 5-105 GHz with bandwidths of 5-20 GHz that provide a minimum data rate of 5-40 Gbps ([0024] & [0043]), which meets the limitation of a primary link at approximately sixty GigaHertz (60GHz), wherein

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the primary link has a data rate of at least two Giga bits per second (2.0 Gbps) and the primary link has a bandwidth of approximately 2.5 GHz. It would have been obvious to one of ordinary skill in the art at the time the invention was made to transmit the uncompressed data of Olson using rf/microwave signals of Chang in order to take advantage of the high data rate communications possible using a high frequency band (Nesic: Col. 1, lines 11-32), which would have allowed for faster transmission of the uncompressed data of Olson. Olson does not disclose that the projector transmits display capability information to the portable computer. Koyama discloses a projector that transmits display settings information to a computer ([0016] & Figure 4), which meets the limitation of the displayer sends to the source signals indicating at least one display capability of the displayer, the displayer and source further communicate displayer control signals/capability signals. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the projector of Olson to transmit display settings information to the portable computer in order to the system user of the current display settings for the projector such that the user is able to modify the current settings if desired as taught by Koyama ([0058]). Olson does not disclose multiplexing display control signals with the uncompressed data. Yanagihara discloses a video distribution system wherein trick play data is multiplexed with video signals (Col. 13, lines 1-8), which meets the limitation of displayer control signals are multiplexed with the multimedia data on the primary link. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the uncompressed data of Olson to be multiplexed with trick play data in order to allow for varying speed reproduction as taught by Yanagihara (Col. 13, lines 1-8).

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12. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Olson, U.S. Publication No. 2003/0117587, in view of Chang, U.S. Publication No. 2002/0183003, in view of Nesic, U.S. Patent No. 6,593,895, in view of Koyama, U.S. Publication No. 2002/0159035, in view of Yanagihara, U.S. Patent No. 5,712,946, and further in view of Rao, U.S. Patent No. 5,881,074. Referring to claim 4, Chang does not specify whether the link is full or half duplex. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the link in full-duplex in order to take advantage of the full bandwidth as taught in Rao (Col. 2, lines 9-12), which would benefit the uncompressed data transmissions of Olson.

13. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Olson, U.S. Publication No. 2003/0117587, in view of Chang, U.S. Publication No. 2002/0183003, in view of Nesic, U.S. Patent No. 6,593,895, in view of Koyama, U.S. Publication No. 2002/0159035, in view of Yanagihara, U.S. Patent No. 5,712,946, and in further view of Edenson, U.S. Patent No. 7,006,995. Referring to claim 5, Olson does not disclose the uncompressed data being encrypted prior to being received by the projector. Edenson discloses a projector receiving encrypted data and a decryption key together (Col. 3, line 61 - Col. 4, line 2 & Col. 8, lines 28-31), which meets the limitation of encryption keys are multiplexed with the multimedia data on the primary link. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the uncompressed data of Olson to be encrypted prior to being transmitted to the projector in order to render the data virtually useless if intercepted by an unauthorized party as taught by Edenson (Col. 3, line 66 – Col. 4, line 2).

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14. Claims 9-12, 31-34, 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olson, U.S. Publication No. 2003/0117587, in view of Chang, U.S. Publication No. 2002/0183003, in view of Nesic, U.S. Patent No. 6,593,895, and further in view of Saints, U.S. Patent No. 6,374,085. Referring to claims 9, 11, 12, Olson discloses a projector (Figure 2, 14) that wirelessly (Figure 2, 32 & [0023]) receives uncompressed data ([0041]) from a portable computer (Figure 4, 56 & 58) for display on a screen (Figure 4, 65), which meets the limitation disposing a multimedia transmitter and a multimedia receiver in a room on different surfaces from each other, establishing a wireless link between the transmitter and receiver, wirelessly transmitting a multimedia signal on a link from the transmitter to the receiver. Olson does not specify using a frequency sufficiently high that the signal substantially cannot be received outside the room. Chang discloses using rf/microwave signals in the frequency range of 5-105 GHz with bandwidths of 5-20 GHz that provide a minimum data rate of 5-40 Gbps ([0024] & [0043]), which meets the limitation of a frequency sufficiently high that the signal substantially cannot be received outside the room, the frequency is approximately sixty GigaHertz (60 GHz), the link has a data rate of at least two Giga bits per second (2.0 Gbps). It would have been obvious to one of ordinary skill in the art at the time the invention was made to transmit the uncompressed data of Olson using rf/microwave signals of Chang in order to take advantage of the high data rate communications possible using a high frequency band (Nesic: Col. 1, lines 11-32), which would have allowed for faster transmission of the uncompressed data of Olson. Olson does not disclose that the computer and projector communicate power control information. Saints discloses transmitting power control information on the reverse link (Col. 2, lines 41-49), which meets the limitation of signals being exchanged between the transmitter and receiver

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wherein player control signals are sent between the transmitter and receiver, at least some control signals being useful for establishing a transmitter antenna beam control. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the projector and computer of Olson to transmit power control information in order to avoid interference conditions and the reception of erroneous frames as taught by Saints (Col. 1, line 65 – Col. 2, line 8).

Referring to claim 10, Olson does not specify that the data transmitted is high definition multimedia data. Nesic discloses utilizing microwave and millimeter-wave communication systems at the frequency band of 59-64 GHz for short range high data rate communication for HD video transmissions and TV distribution systems (Col. 1, lines 11-32), which meets the limitation of the data is high definition multimedia data. It would have been obvious to one of ordinary skill in the art at the time the invention was made to transmit high definition uncompressed data in Olson using 60GHz frequency band in order to take advantage of the high data rate communications possible using the 60 GHz frequency band (Nesic: Col. 1, lines 11-32).

Referring to claims 31, 34, Olson discloses a projector (Figure 2, 14) that wirelessly (Figure 2, 32 & [0023]) receives uncompressed data ([0041]) from a portable computer (Figure 4, 56 & 58) for display on a screen (Figure 4, 65), which meets the limitation of a source of multimedia data, a display for the multimedia data, the source wirelessly transmitting the multimedia data in an uncompressed form to the display on a primary link. Olson does not specify using a frequency band of 60 GHz. Chang discloses using rf/microwave signals in the frequency range of 5-105 GHz with bandwidths of 5-20 GHz that provide a minimum data rate of 5-40 Gbps ([0024] & [0043]), which meets the limitation of a primary link at approximately

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sixty GigaHertz (60GHz), wherein the primary link has a data rate of at least two and a half Giga bits per second (2.0 Gbps). It would have been obvious to one of ordinary skill in the art at the time the invention was made to transmit the uncompressed data of Olson using rf/microwave signals of Chang in order to take advantage of the high data rate communications possible using a high frequency band (Nesic: Col. 1, lines 11-32), which would have allowed for faster transmission of the uncompressed data of Olson. Olson does not disclose that the computer and projector communicate power control information. Saints discloses transmitting power control information on the reverse link (Col. 2, lines 41-49), which meets the limitation of control signals are sent between the source and display, at least some control signals being useful for establishing a source antenna beam form control. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the projector and computer of Olson to transmit power control information in order to avoid interference conditions and the reception of erroneous frames as taught by Saints (Col. 1, line 65 – Col. 2, line 8).

Referring to claims 32, 39, Olson does not specify that the data transmitted is high definition multimedia data. Nesic discloses utilizing microwave and millimeter-wave communication systems at the frequency band of 59-64 GHz for short range high data rate communication for HD video transmissions and TV distribution systems (Col. 1, lines 11-32), which meets the limitation of the source of multimedia data is a set-top box like device capable of decoding compressed multimedia content as received from at least one of satellite, cable, terrestrial broadcast, internet streaming, the data is high definition multimedia data. It would have been obvious to one of ordinary skill in the art at the time the invention was made to transmit high definition uncompressed data in Olson using 60GHz frequency band in order to

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take advantage of the high data rate communications possible using the 60 GHz frequency band (Nesic: Col. 1, lines 11-32).

Referring to claim 33, Olson discloses utilizing LCDs ([0017]), which meets the limitation of the display is a liquid crystal display (LCD).

15. Claims 7, 8, are rejected under 35 U.S.C. 103(a) as being unpatentable over Olson, U.S. Publication No. 2003/0117587, in view of Chang, U.S. Publication No. 2002/0183003, in view of Nesic, U.S. Patent No. 6,593,895, in view of Saints, U.S. Patent No. 6,374,085, and further in view of Yanagihara, U.S. Patent No. 5,712,946. Referring to claim 7, Olson discloses a projector (Figure 2, 14) that wirelessly (Figure 2, 32 & [0023]) receives uncompressed data ([0041]) from a portable computer (Figure 4, 56 & 58) for display on a screen (Figure 4, 65), which meets the limitation of a source of multimedia data, means for storing multimedia data, and a displayer of multimedia data mounted in a room in which the source is disposed, the source wirelessly transmitting the multimedia data in an uncompressed form to the displayer on a primary link, the displayer is a projector, the source and displayer not being disposed together in a common package. Olson does not specify using a frequency band of 60 GHz. Chang discloses using rf/microwave signals in the frequency range of 5-105 GHz with bandwidths of 5-20 GHz that provide a minimum data rate of 5-40 Gbps ([0024] & [0043]), which meets the limitation of a primary link at approximately sixty GigaHertz (60GHz), wherein the primary link has a data rate of at least two Giga bits per second (2.0 Gbps) and the primary link has a bandwidth of approximately 2.5 GHz. It would have been obvious to one of ordinary skill in the art at the time the invention was made to transmit the uncompressed data of Olson using rf/microwave signals of Chang in order to take advantage of the high data rate communications possible using a high

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frequency band (Nesic: Col. 1, lines 11-32), which would have allowed for faster transmission of the uncompressed data of Olson. Olson does not disclose that the computer and projector communicate power control information. Saints discloses transmitting power control information on the reverse link (Col. 2, lines 41-49), which meets the limitation of control signals are sent between the source and displayer, at least some control signals indicating a reception condition at the receiver useful for establishing a source transmission power level. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the projector and computer of Olson to transmit power control information in order to avoid interference conditions and the reception of erroneous frames as taught by Saints (Col. 1, line 65 – Col. 2, line 8). Olson does not disclose multiplexing display control signals with the uncompressed data. Yanagihara discloses a video distribution system wherein trick play data is multiplexed with video signals (Col. 13, lines 1-8), which meets the limitation of displayer control signals are multiplexed with the multimedia data on the primary link. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the uncompressed data of Olson to be multiplexed with trick play data in order to allow for varying speed reproduction as taught by Yanagihara (Col. 13, lines 1-8).

Referring to claim 8, Olson does not specify that the data transmitted is high definition multimedia data. Nesic discloses utilizing microwave and millimeter-wave communication systems at the frequency band of 59-64 GHz for short range high data rate communication for HD video transmissions and TV distribution systems (Col. 1, lines 11-32), which meets the limitation of the data is high definition multimedia data. It would have been obvious to one of ordinary skill in the art at the time the invention was made to transmit high definition

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uncompressed data in Olson using 60GHz frequency band in order to take advantage of the high data rate communications possible using the 60 GHz frequency band (Nesic: Col. 1, lines 11-32).

16. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Olson, U.S.

Publication No. 2003/0117587, in view of Chang, U.S. Publication No. 2002/0183003, in view of Nesic, U.S. Patent No. 6,593,895, in view of Saints, U.S. Patent No. 6,374,085, and further in view of Koyama, U.S. Publication No. 2002/0159035. Referring to claim 15, Olson does not disclose that the projector transmits display capability information to the portable computer.

Koyama discloses a projector that transmits display settings information to a computer ([0016] & Figure 4), which meets the limitation of capability signals are communicated between the transmitter and receiver on a secondary link having a data rate lower than the data rate of the primary link. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the projector of Olson to transmit display settings information to the portable computer in order to the system user of the current display settings for the projector such that the user is able to modify the current settings if desired as taught by Koyama ([0058]).

17. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Olson, U.S.

Publication No. 2003/0117587, in view of Chang, U.S. Publication No. 2002/0183003, in view of Nesic, U.S. Patent No. 6,593,895, in view of Saints, U.S. Patent No. 6,374,085, and further in view of Rao, U.S. Patent No. 5,881,074. Referring to claim 35, Chang does not specify whether the link is full or half duplex. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the link in full-duplex in order to take advantage of the full bandwidth as taught in Rao (Col. 2, lines 9-12), which would benefit the uncompressed data transmissions of Olson.

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18. Claims 36, 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olson, U.S. Publication No. 2003/0117587, in view of Chang, U.S. Publication No. 2002/0183003, in view of Nesic, U.S. Patent No. 6,593,895, in view of Saints, U.S. Patent No. 6,374,085, and in further view of Edenson, U.S. Patent No. 7,006,995. Referring to claims 36, 37, Olson does not disclose the uncompressed data being encrypted prior to being received by the projector. Edenson discloses a projector receiving encrypted data and a decryption key together (Col. 3, line 61 - Col. 4, line 2 & Col. 8, lines 28-31), which meets the limitation of encryption keys are multiplexed with the multimedia data on the primary link, the player and source further communicate encryption keys on a secondary link having a data rate lower than the data rate of the primary link. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the uncompressed data of Olson to be encrypted prior to being transmitted to the projector in order to render the data virtually useless if intercepted by an unauthorized party as taught by Edenson (Col. 3, line 66 – Col. 4, line 2).

19. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Olson, U.S. Publication No. 2003/0117587, in view of Chang, U.S. Publication No. 2002/0183003, in view of Nesic, U.S. Patent No. 6,593,895, in view of Saints, U.S. Patent No. 6,374,085, and in further view of Koyama, U.S. Publication No. 2002/0159035. Referring to claim 37, Olson does not disclose that the projector transmits display capability information to the portable computer. Koyama discloses a projector that transmits display settings information to a computer ([0016] & Figure 4), which meets the limitation of player control signals/capability signals are communicated between the transmitter and receiver on a secondary link having a data rate lower than the data rate of the primary link. It would have been obvious to one of ordinary skill in the

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art at the time the invention was made for the projector of Olson to transmit display settings information to the portable computer in order to the system user of the current display settings for the projector such that the user is able to modify the current settings if desired as taught by Koyama ([0058]).

20. Claims 17-18, 22, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olson, U.S. Publication No. 2003/0117587, in view of Nesic, U.S. Patent No. 6,593,895, and further in view of Ishimaru, JP 2000-307494 A. Referring to claims 17-18, 22, 23, Olson discloses a projector (Figure 2, 14) that wirelessly (Figure 2, 32 & [0023]) receives uncompressed data ([0041]) from a portable computer (Figure 4, 56 & 58) for display on a screen (Figure 4, 65), which meets the limitation of means for storing multimedia data, means for wirelessly transmitting, to a receiver, the multimedia data in uncompressed form on a link, the multimedia data is transmitted from the computer to the receiver on a primary link. Olson does not specify using a frequency band of 60 GHz. Nesic discloses utilizing microwave and millimeter-wave communication systems at the frequency band of 59-64 GHz for short range high data rate communication for HD video transmissions and TV distribution systems (Col. 1, lines 11-32), which meets the limitation of a link having a frequency of approximately sixty GigaHertz (60 GHz) such that unless the receiver is in the same room as the computer it substantially cannot receive the multimedia data, the multimedia data is high definition (HD) multimedia data. It would have been obvious to one of ordinary skill in the art at the time the invention was made to transmit the uncompressed data of Olson using 60GHz frequency band in order to take advantage of the high data rate communications possible using the 60 GHz frequency band (Nesic: Col. 1, lines 11-32), which would have allowed for faster transmission of

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the uncompressed data of Olson. Olson does not disclose signals being sent from the projector to the computer that adjust the directivity of the antenna beam. Ishimaru discloses transmitting a setting signal denoting the antenna directivity to a based station (Abstract), which meets the limitation of capability signals are sent from the receiver to the means for wirelessly transmitting to cause the means for wirelessly transmitting to adjust a directivity of an antenna beam transmitted by the means for wirelessly transmitting, control signals are sent between the computer and receiver, at least some control signals being useful for establishing a multimedia player antenna beam control. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the projector of Olson to transmit a setting signal to the computer that denotes the antenna directivity in order to reduce interference as taught by Ishimaru ([0004]-[0007]).

21. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Olson, U.S. Publication No. 2003/0117587, in view of Nesic, U.S. Patent No. 6,593,895, in view of Ishimaru, JP 2000-307494 A, and further in view of Rao, U.S. Patent No. 5,881,074. Referring to claim 19, Nesic does not specify whether the link is full or half duplex. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the link in full-duplex in order to take advantage of the full bandwidth as taught in Rao (Col. 2, lines 9-12), which would benefit the uncompressed data transmissions of Olson.

Conclusion

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENJAMIN E. LANIER whose telephone number is (571)272-3805. The examiner can normally be reached on M-Th 7:00am-5:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Benjamin E Lanier/
Primary Examiner, Art Unit 2432